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NEWS 1
                 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 Apr 08
                 "Ask CAS" for self-help around the clock
NEWS 3 Jun 03 New e-mail delivery for search results now available
NEWS 4 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 5 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
                 now available on STN
NEWS 6 Aug 26 Sequence searching in REGISTRY enhanced
NEWS 7 Sep 03 JAPIO has been reloaded and enhanced
NEWS 8 Sep 16 Experimental properties added to the REGISTRY file
NEWS 9 Sep 16 CA Section Thesaurus available in CAPLUS and CA
NEWS 10 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11 Oct 24 BEILSTEIN adds new search fields
NEWS 12 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13 Nov 18 DKILIT has been renamed APOLLIT
NEWS 14 Nov 25 More calculated properties added to REGISTRY
NEWS 15 Dec 04 CSA files on STN
NEWS 16 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17 Dec 17 TOXCENTER enhanced with additional content
NEWS 18 Dec 17 Adis Clinical Trials Insight now available on STN
NEWS 19 Jan 29 Simultaneous left and right truncation added to COMPENDEX,
                 ENERGY, INSPEC
NEWS 20 Feb 13 CANCERLIT is no longer being updated NEWS 21 Feb 24 METADEX enhancements
NEWS 22 Feb 24 PCTGEN now available on STN
NEWS 23 Feb 24 TEMA now available on STN
NEWS 24 Feb 26 NTIS now allows simultaneous left and right truncation
NEWS 25 Feb 26 PCTFULL now contains images
NEWS 26 Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27 Mar 19 APOLLIT offering free connect time in April 2003
NEWS 28 Mar 20 EVENTLINE will be removed from STN
NEWS 29 Mar 24 PATDPAFULL now available on STN
NEWS 30 Mar 24 Additional information for trade-named substances without
                 structures available in REGISTRY
NEWS 31 Mar 24 Indexing from 1957 to 1966 added to records in CA/CAPLUS
NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
              MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
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=> s spinach and transform? and agrobacterium and apical
L1 3 SPINACH AND TRANSFORM? AND AGROBACTERIUM AND APICAL

=> d l1 1-3

L1 ANSWER 1 OF 3 AGRICOLA

AN 1998:63490 AGRICOLA

DN IND21380124

TI Shoot regeneration from cultured root explants of ***spinach***
(Spinacia oleracea L.): a system for ***Agrobacterium***

transformation .

AU Knoll, K.A.; Short, K.C.; Curtis, I.S.; Power, J.B.; Davey, M.R.

AV DNAL (QK725.P54)

SO Plant cell reports, Dec 1997. Vol. 17, No. 2. p. 96-101 Publisher: Berlin, W. Ger. : Springer International. CODEN: PCRPD8; ISSN: 0721-7714

NTE Includes references

CY Germany

DT Article

- FS Non-U.S. Imprint other than FAO LA English
- L1 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- AN 1998:83806 BIOSIS
- DN PREV199800083806
- TI Shoot regeneration from cultured root explants of ***spinach***
 (Spinacia oleracea L.): A system for ***Agrobacterium***

 transformation .
- AU Knoll, K. A.; Short, K. C.; Curtis, I. S.; Power, J. B.; Davey, M. R. (1)
- CS (1) Plant Genetic Manipulation Group, Dep. Life Sci., Univ. Nottingham, University Park, Nottingham NG7 2RD UK
- SO Plant Cell Reports, (Dec., 1997) Vol. 17, No. 2, pp. 96-101. ISSN: 0721-7714.
- DT Article
- LA English
- L1 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS
- AN 1998:42749 CAPLUS
- DN 128:86537
- TI Shoot regeneration from cultured root explants of ***spinach***
 (Spinacia oleracea). A system for ***Agrobacterium***

 transformation
- AU Knoll, K. A.; Short, K. C.; Curtis, I. S.; Power, J. B.; Davey, M. R.
- CS Dep. Life Sciences, Nottingham Trent Univ., Nottingham, NG11 8NS, UK
- SO Plant Cell Reports (1997), 17(2), 96-101 CODEN: PCRPD8; ISSN: 0721-7714
- PB Springer-Verlag
- DT Journal
- LA English

=> d l1 ab

- L1 ANSWER 1 OF 3 AGRICOLA
- AΒ A reliable plant regeneration system is described for the production of adventitious shoots from root explants of ***spinach*** . Explants from roots of axenic shoots and roots induced on cultured hypocotyl explants were used for adventitious shoot induction. Explants from ***apical*** , middle and basal root regions were incubated on Nitsch and Nitsch medium supplemented with alpha-naphthaleneacetic acid, gibberellic acid and kinetin. Optimum shoot regeneration was from explants of and middle root regions on medium with 20 micromolar alphanaphthaleneacetic acid and 5.0 micromolar gibberellic acid. Shoots originated directly from root tissues without an intervening callus phase. Adventitious shoots were rooted and were grown to maturity in the glasshouse. This plant regeneration procedure has been exploited in preliminary studies of ***Agrobacterium*** -mediated ***transformation***
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For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>). => n N IS NOT A RECOGNIZED COMMAND The previous command name entered was not recognized by the system. For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>). => duplicate remove 12 DUPLICATE PREFERENCE IS 'AGRICOLA, BIOSIS, CAPLUS' KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n PROCESSING COMPLETED FOR L2 33 DUPLICATE REMOVE L2 (11 DUPLICATES REMOVED) => d 13 1-10 ANSWER 1 OF 33 CAPLUS COPYRIGHT 2003 ACS AN 2003:77615 CAPLUS DN 138:148733 Gene controlling fruit size and cell division in plants IN Tanksley, Steven D. PA USA SO U.S. Pat. Appl. Publ., 35 pp. CODEN: USXXCO DTPatent LΆ English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE -----_ _ _ _ ----------US 2003024013 A1 20030130 US 2001-898659 20010703 PRAI US 2000-215824P P 20000705 L3 ANSWER 2 OF 33 CAPLUS COPYRIGHT 2003 ACS ΑN 2002:716499 CAPLUS DN 137:244849 Use of Arabidopsis thaliana tps1 gene encoding trehalose-6-phosphate synthase as selection markers for transgenic plants with improved stress resistance IN Thevelein, Johan; Leyman, Barbara; Van Dijck, Patrick; Avonce, Nelson; Iturriaga, Gabriel K.U. Leuven Research & Development, Belg. PΑ PCT Int. Appl., 39 pp. CODEN: PIXXD2 DT Patent LA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------------PΙ WO 2002072849 A2 20020919 WO 2002-EP818 20020103 WO 2002072849 A3 20030206 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,

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PRAI GB 2001-105
                      Α
                           20010104
L3
     ANSWER 3 OF 33 CAPLUS COPYRIGHT 2003 ACS
AN
     2002:158008 CAPLUS
DN
     136:211940
     Nucleic acid sequence of novel genetic vector and methods for plant gene
TΤ
IN
     Baulcombe, David Charles; Martin-Hernandez, Ana Montserrat
     Plant Bioscience Limited, UK
PΑ
     PCT Int. Appl., 72 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                    KIND DATE
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     WO 2002016622
                    A1 20020228
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                           20020304
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PRAI GB 2000-20320
                           20000817
                      A
     WO 2001-GB3623
                      W
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             THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 6
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 4 OF 33 CAPLUS COPYRIGHT 2003 ACS
L3
AN
     2002:655135 CAPLUS
DN
     137:196741
TI
     Constitutive and inducible promoters of .alpha.-tubulin and phenylalanine
     ammonia lyase genes from coffee plants
IN
     Aldwinckle, Herbert S.; Gaitan, Alvaro L.
PA
     Cornell Research Foundation, Inc., USA
SO
    U.S., 48 pp.
     CODEN: USXXAM
DT
    Patent
LA
    English
FAN.CNT 1
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    US 6441273
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                           20020827
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PRAI US 2000-184934P P
                           20000208
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RE.CNT 26
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    ANSWER 5 OF 33 CAPLUS COPYRIGHT 2003 ACS
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AN

DN

2002:685043 CAPLUS

137:205835

```
***Transformed*** plant having durability to heavy metals and capability of heavy metal removal
```

IN Saito, Kazutoshi; Noji, Masaaki; Nakamura, Michiyoshi

PA Japan Science and Technology Corporation, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 2002253072 A2 20020910 JP 2001-60795 20010305

PRAI JP 2001-60795 20010305

L3 ANSWER 6 OF 33 CAPLUS COPYRIGHT 2003 ACS

AN 2002:847553 CAPLUS

DN 137:366671

- TI Increasing the flavonoid content of fruits by coexpression of foreign genes for chalcone synthase and flavonol synthase
- IN Colliver, Steve Peter; Hughes, Stephen Glyn; Muir, Shelagh Rachael; Verhoeyen, Martine Elisa; Van Tunen, Adrianus Johannes
- PA Unilever PLC, UK; Unilever N.V.
- SO Eur. Pat. Appl., 71 pp. CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE --------------EP 1254960 A1 20021106 PΙ EP 2002-252967 20020426 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR PRAI EP 2001-304009 20010502 Α

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 7 OF 33 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
- AN 2002:375926 BIOSIS
- DN PREV200200375926
- TI Synthesis of a novel class of polyhydroxyalkanoates in Arabidopsis peroxisomes, and their use in monitoring short-chain-length intermediates of beta-oxidation.
- AU Arai, Yuko; Nakashita, Hideo (1); Suzuki, Yoshikatu; Kobayashi, Yumiko; Shimizu, Toshiyuki; Yasuda, Michiko; Doi, Yoshiharu; Yamaguchi, Isamu
- CS (1) RIKEN Institute, 2-1 Hirosawa, Wako-shi, Saitama, 351-0198: nakashi@postman.riken.go.jp Japan
- SO Plant and Cell Physiology, (May, 2002) Vol. 43, No. 5, pp. 555-562. http://www.pcp.oupjournals.org/. print. ISSN: 0032-0781.
- DT Article
- LA English
- L3 ANSWER 8 OF 33 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2
- AN 2002:515559 BIOSIS
- DN PREV200200515559

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Explants of Ri- ***transformed*** hairy roots of ***spinach***
ΤI
     develop embryogenic calli in the absence of gibberellic acid, an essential
     growth regulator for induction of embryogenesis from non-
       ***transformed***
                           roots.
     Ishizaki, Takuma (1); Hoshino, Yoichiro; Masuda, Kiyoshi; Oosawa, Katsuji
ΑU
     (1) Graduate School of Agriculture, Hokkaido University, Sapporo,
CS
     060-8589: gohho@res.agr.hokudai.ac.jp Japan
     Plant Science (Shannon), (August, 2002) Vol. 163, No. 2, pp. 223-231.
SO
     http://www.elsevier.com/locate/plantsci. print.
     ISSN: 0168-9452.
DT
     Article
LA
     English
L3
     ANSWER 9 OF 33 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN
     2003:15534 BIOSIS
DN
     PREV200300015534
     Strategies to deal with the concern about marker genes in transgenic
TI
     plants: Some environment-friendly approaches.
ΑU
     Jaiwal, Pawan K. (1); Sahoo, Lingaraj; Singh, N. Dolendro; Singh, Rana P.
CS
     (1) Department of Biosciences, Maharshi Dayanand University, Rohtak, 124
     001, India: pkjaiwal@yahoo.com India
SO
     Current Science (Bangalore), (25 July 2002) Vol. 83, No. 2, pp. 128-136.
     print.
     ISSN: 0011-3891.
DT
     Article
     English
LA
     ANSWER 10 OF 33 CAPLUS COPYRIGHT 2003 ACS
     2001:693528 CAPLUS
ΑN
DN
     135:268166
     S-adenosyl-L-methionine:phosphoethanolamine N-methyltransferase
TΤ
     compositions and methods for modulating lipid biosynthesis in transgenic
IN
     Hanson, Andrew D.; Nuccio, Michael L.; Henry, Susan A.
PA
     University of Florida, USA; Carnegie Mellon University
SO
     PCT Int. Appl., 158 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
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     WO 2001068870
                      A2
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PRAI US 2000-525885
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             THERE ARE 280 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
       280
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
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     ANSWER 11 OF 33 CAPLUS COPYRIGHT 2003 ACS
AN
     2000:335577 CAPLUS
DN
     133:2629
     Proteins eliciting a hypersensitive response from ***Agrobacterium***
TI
     vitis and the genes encoding them and their uses
     Burr, Thomas J.; Herlache, Thomas C.; Zhang, Hongsheng
IN
PΑ
     Cornell Research Foundation, Inc., USA
SO
     PCT Int. Appl., 157 pp.
     CODEN: PIXXD2
DT
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LA
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                      A2
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PRAI US 1998-107387P P
                           19981106
     WO 1999-US26079
                     W
                           19991105
L3
     ANSWER 12 OF 33 AGRICOLA
                                                       DUPLICATE 3
     1999:75923 AGRICOLA
DN
     IND22010485
TI
     An efficient
                  ***Agrobacterium***
                                         tumefaciens-mediated
       ***transformation*** and regeneration system for cotyledons of
       ***spinach***
                      (Spinacia oleracea L.).
ΑU
     Zhang, H.X.; Zeevaart, J.A.D.
     Michigan State University, East Lansing.
CS
     Plant cell reports, Mar 1999. Vol. 18, No. 7/8. p. 640-645
     Publisher: Berlin, W. Ger. : Springer International.
     CODEN: PCRPD8; ISSN: 0721-7714
    Includes references
NTE
CY
    Germany
DT
    Article
FS
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LA
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L3
    ANSWER 13 OF 33 AGRICOLA
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AN
    1999:2259 AGRICOLA
DN
    IND21811119
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Characterization of a gene for ***spinach*** CAP160 and expression of

two ***spinach*** cold-acclimation proteins in tobacco.

Kaye, C.; Neven, L.; Hofig, A.; Li, Q.B.; Haskell, D.; Guy, C.

ΤI

ΑU

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Centre de Cooperation Internationale en Recherche Agronomique pour la
     Developpement, Montpellier, France.
ΑV
     DNAL (450 P692)
SO
     Plant physiology, Apr 1998. Vol. 116, No. 4. p. 1367-1377
     Publisher: Rockville, MD: American Society of Plant Physiologists, 1926-
     CODEN: PLPHAY; ISSN: 0032-0889
NTE Includes references
CY
     Maryland; United States
     Article; Conference
DT
FS
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LA
     English
L3
     ANSWER 14 OF 33 CAPLUS COPYRIGHT 2003 ACS
AN
     1998:540354 CAPLUS
DN
     130:917
ΤI
     Expression of
                     ***spinach***
                                      betaine aldehyde dehydrogenase gene in
     transgenic tobacco plants
ΑU
     Liang, Zheng; Ma, Deqin; Tang, Lan; Hong, Yiguo; Luo, Ailing; Dai, Xiuyu
CS
     Institute of Botany, Academia Sinica, Beijing, 100093, Peop. Rep. China
SO
     Shengwu Gongcheng Xuebao (1997), 13(3), 236-240
     CODEN: SGXUED; ISSN: 1000-3061
PΒ
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DT
     Journal
LA
     Chinese
L3
     ANSWER 15 OF 33 AGRICOLA
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AN
     97:76850 AGRICOLA
DN
     IND20600220
     Transgenic
                  ***spinach***
                                  plants expressing the coat protein of
     cucumber mosaic virus.
ΑU
     Yang, Y.M.; Al-Khayri, J.M.; Anderson, E.J.
     University of Arkansas, Fayetteville, AR.
CS
ΑV
     DNAL (QK725.I43)
SO
     In vitro cellular & developmental biology. Plant : journal of the Tissue
     Culture Association, July/Sept 1997. Vol. 33, No. 3. p. 200-204
     Publisher: Columbia, MD : Society for In Vitro Biology.
     CODEN: IVCPEO; ISSN: 1054-5476
NTE Includes references
CY
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DT
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LΑ
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L3
     ANSWER 16 OF 33 AGRICOLA
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     1998:63490 AGRICOLA
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ΤI
     Shoot regeneration from cultured root explants of
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     (Spinacia oleracea L.): a system for ***Agrobacterium***
       ***transformation***
     Knoll, K.A.; Short, K.C.; Curtis, I.S.; Power, J.B.; Davey, M.R.
ΑU
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     DNAL (QK725.P54)
     Plant cell reports, Dec 1997. Vol. 17, No. 2. p. 96-101
SO
     Publisher: Berlin, W. Ger. : Springer International.
     CODEN: PCRPD8; ISSN: 0721-7714
NTE Includes references
CY
     Germany
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Article

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Non-U.S. Imprint other than FAO
LA
     English
     ANSWER 17 OF 33 CAPLUS COPYRIGHT 2003 ACS
L3
AN
     1996:371936 CAPLUS
DN
     125:27695
ΤI
     Aldehyde dehydrogenase selectable markers for plant ***transformation***
IN
     Ursin, Virginia M.
PΑ
     Calgene, Inc., USA
     PCT Int. Appl., 21 pp.
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     CODEN: PIXXD2
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                                        WO 1995-US13079 19951012
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     US 5633153
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TI
    Molecular cloning and sequence analysis of a ***spinach***
     2-oxoglutarate/malate-translocator protein cDNA and manipulation of
    plasmids, bacteria, yeasts and plants containing the translocator
IN
    Fluegge, Ulf-Ingo; Weber, Andreas; Fischer, Karsten
PΑ
    Germany
SO
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    US 5981219
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FS

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1995:706890 CAPLUS
AN
     123:134977
DN
     In planta expression of cDNA encoding 3-ketoacyl-acyl carrier protein
TI
     synthase III (KAS III) from ***spinach***
ΑU
     Tai, Heeyoung; Jaworski, Jan G.
CS
     Department Chemistry, Miami University, Oxford, OH, USA
SO
     Plant Lipid Metabolism, [Papers presented at the International Meeting on
     Plant Lipids] -- 11th, Paris, June 26-July 1, 1994 (1995), Meeting Date
     1994, 72-4. Editor(s): Kader, Jean-Claude; Mazliak, Paul. Publisher:
     Kluwer, Dordrecht, Neth.
     CODEN: 610ZAO
DT
     Conference
LA
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L3
     ANSWER 20 OF 33 CAPLUS COPYRIGHT 2003 ACS
AN
     1995:328494 CAPLUS
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     122:125347
     Transgenic organisms containing improved starch yield by
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     Villand, Per; Kleczkowski, Leszek; Olsen, Odd-Arne; Poulsen, Peter;
IN
     Okkels, Finn; Marcussen, Jan
    Danisco A/S, Den.
PΑ
SO
    PCT Int. Appl., 87 pp.
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ANSWER 19 OF 33 CAPLUS COPYRIGHT 2003 ACS

L3

^{=&}gt; s 13 and spinach(w)transform?

L4 0 L3 AND SPINACH(W) TRANSFORM?

^{=&}gt; s sugar(w)beet and transform? and agrobacterium

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AN
     2002:658222 CAPLUS
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     137:196634
     Method for efficient ***transformation***
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     wounding and ***Agrobacterium*** tumefaciens vectors containing
     transgenes
IN
     Choi, Yang-Do; Seo, Hak-Soo; Song, Jong-Tae; Cheong, Jong-Joo; Lee,
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PA
     Scigen Harvest Co., Ltd., S. Korea
SO
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AN
    2000:756880 CAPLUS
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            ***transformation***
                                   method by embryo iniculation in the seed
IN
    Risacher, Thierry; Craze, Melanie
PA
    Rhobio, Fr.
    PCT Int. Appl., 46 pp.
SO
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     2000:666878 CAPLUS
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     Arabidopsis thaliana chromosome centromere sequences and their use in DNA
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     constructs and vectors
IN
     Preuss, Daphne; Copenhaver, Gregory; Keith, Kevin
PA
     The University of Chicago, USA
SO
     PCT Int. Appl., 1451 pp.
     CODEN: PIXXD2
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    ANSWER 4 OF 7 CAPLUS COPYRIGHT 2003 ACS
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    1994:553580 CAPLUS
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ΤI
    The effects of acetosyringone and pH on ***Agrobacterium***
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***beet***
                   varieties
ΑU
     Mian, Asad Jamil
     Postgrad. Bot. Dep., Gov. S.E. Coll., Bahawalpur, India
CS
     Science International (Lahore) (1993), 5(3), 281-4
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AN
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     Factors influencing T-DNA transfer in ***Agrobacterium*** -mediated
TΙ
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                                Jacq, Benoit; Lesobre, Oliver; Sangwan, Rajbir S.; Sangwan-Norreel,
ΑU
     Brigitte S.
CS
     Lab. AEB, Univ. Picardie, Amiens, 80039, Fr.
     Plant Cell Reports (1993), 12(11), 621-4
SO
     CODEN: PCRPD8; ISSN: 0721-7714
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LA
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L7
     ANSWER 6 OF 7 CAPLUS COPYRIGHT 2003 ACS
AN
     1993:599030 CAPLUS
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     Effect of antibiotics on the culture of sugar and fodder beet tissue
ΑU
     Yurkova, G. N.; Chugunkova, T. V.; Shevtsov, I. A.
CS
     Inst. Fiziol. Rast. Genet., Kiev, Ukraine
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     Tsitologiya i Genetika (1993), 27(2), 3-6
     CODEN: TGANAK; ISSN: 0564-3783
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T.7
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AN
    1990:435740 CAPLUS
DN
    113:35740
TI
    The molecular biology of plant growth control.
ΑU
    Ryan, Lucy Anne
    Counc. Natl. Academic Awards, London, UK
CS
     (1988) 252 pp. Avail.: Univ. Microfilms Int., Order No. BRDX87901
    From: Diss. Abstr. Int. B 1990, 50(11), 4853-4
DT
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=> s 17 and shoot
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=> d 18 1-3
    ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS
1.8
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    133:318276
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           ***transformation***
                                  method by embryo iniculation in the seed
IN
    Risacher, Thierry; Craze, Melanie
PΑ
    Rhobio, Fr.
    PCT Int. Appl., 46 pp.
SO
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CODEN: PIXXD2
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RE.CNT 6
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AN
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     121:153580
     The effects of acetosyringone and pH on ***Agrobacterium***
       ***transformation*** vary according to different ***sugar***
       ***beet***
                   varieties
ΑU
     Mian, Asad Jamil
CS
     Postgrad. Bot. Dep., Gov. S.E. Coll., Bahawalpur, India
     Science International (Lahore) (1993), 5(3), 281-4
SO
     CODEN: SINTE8; ISSN: 1013-5316
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    Journal
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    English
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    ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS
AN
    1993:599030 CAPLUS
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    Effect of antibiotics on the culture of sugar and fodder beet tissue
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    Yurkova, G. N.; Chugunkova, T. V.; Shevtsov, I. A.
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    Inst. Fiziol. Rast. Genet., Kiev, Ukraine
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    CODEN: TGANAK; ISSN: 0564-3783
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    Journal
LΑ
    Russian
=> d 17 4-5 ab
L7
    ANSWER 4 OF 7 CAPLUS COPYRIGHT 2003 ACS
AB
    Explants of five
                     lines were co-cultivated
    with four ***Agrobacterium*** tumefaciens strains (C58, N2/73, A281,
    Ach5) under different conditions to assess the effects of acetosyringone
```

and medium pH on strain virulence as measured by callus induction. Marked
differences were obsd. in the response of various ***sugar*** ***beet*** lines to the four ***Agrobacterium*** strains at three

levels (5.2, 5.5, 5.8) when grown without acetosyringone. It was concluded that all lines except one exhibited good results for the induction of tumors, shoot regeneration and roots when co-cultivated with C58 and N2/73 strains of ***Agrobacterium***. Effective vir induction requires a medium with pH 5.8, although some strains also showed a good response at all pH levels used in the study e.g. C58. A dramatic complete necrosis was obsd. in all ***sugar*** - ***beet*** lines at all pH levels when co-cultivated with the same four ***Agrobacterium*** strains with the addn. of acetosyringone.

ANSWER 5 OF 7 CAPLUS COPYRIGHT 2003 ACS L7***Agrobacterium*** -mediated ***transformation*** of AB ***beet*** (Beta vulgaris) was investigated for T-DNA transfer efficiency, using an intron contg. .beta.-glucuronidase gene. Preculture and coculture of hypocotyl and cotyledon explants with acetosyringone upon infection was studied. Seven seed lots which included several hundred genotypes, were screened, and were all susceptible to T-DNA transfer but with variable frequencies. Cotyledon explants were more readily ***transformed*** than those from hypocotyls. ***Transformation*** frequency of hypocotyl explants increased with acetosyringone. Both preculture treatment and acetosyringone improved ***transformation*** in cotyledon explants. Callus assayed with fluorometric procedures confirmed that the GUS gene had been transferred into ***sugar*** ***beet***

=> d 18 1-3 ab

рН

рΗ

L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS

AB A ***transformation*** method comprising inoculation and co-cultivation of a target tissue, from a target plant, with ***Agrobacterium*** , at a time when the target tissue is in its natural

plant environment, followed by generation of a transgenic plant via dedifferentiation and regeneration of the target tissue.

L8 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS

AB Explants of five ***sugar*** ***beet*** lines were co-cultivated with four ***Agrobacterium*** tumefaciens strains (C58, N2/73, A281, Ach5) under different conditions to assess the effects of acetosyringone and medium pH on strain virulence as measured by callus induction. Marked differences were obsd. in the response of various ***sugar*** - ***beet*** lines to the four ***Agrobacterium*** strains at three

levels (5.2, 5.5, 5.8) when grown without acetosyringone. It was concluded that all lines except one exhibited good results for the induction of tumors, ***shoot*** regeneration and roots when co-cultivated with C58 and N2/73 strains of ***Agrobacterium***. Effective vir induction requires a medium with pH 5.8, although some strains also showed a good response at all pH levels used in the study e.g. C58. A dramatic complete necrosis was obsd. in all ***sugar*** - ***beet*** lines at all pH levels when co-cultivated with the same four ***Agrobacterium*** strains with the addn. of acetosyringone.

L8 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS Kanamycin at 100-200 .mu.g/mL inhibited rosette formation by fodder beet AB leaf petiole explants more than by ***sugar*** ***beet*** petiole explants. Thus, kanamycin may be used as marker at 100 .mu.g/mL in fodder beet and at 150 .mu.g/mL in ***sugar*** ***beet*** ***transformation*** . Callus formation was more sensitive to kanamycin ***shoot*** and rosette formation. Carbenicillin and claphoran at 500 .mu.g/mL decreased the frequency of callus formation 4- and 2-fold, resp., on nonselective media and inhibited ***shoot*** initiation less. Claphoran at 500 .mu.g/mL did not inhibit ***shoot*** by ***sugar*** ***beet*** explants on selective media with 150 .mu.g kanamycin/mL, where the frequency of rosette formation was .apprx.20%. Thus, claphoran may be used for ***Agrobacterium*** suppression in ***transformations*** using kanamycin.

=> d 19 1-3 ab

T.9 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS AB ***Explants*** of five ***sugar*** ***beet*** lines were co-cultivated with four ***Agrobacterium*** tumefaciens strains (C58, N2/73, A281, Ach5) under different conditions to assess the effects of acetosyringone and medium pH on strain virulence as measured by callus induction. Marked differences were obsd. in the response of various ***sugar*** - ***beet*** lines to the four ***Agrobacterium*** strains at three pH levels (5.2, 5.5, 5.8) when grown without acetosyringone. It was concluded that all lines except one exhibited good results for the induction of tumors, shoot regeneration and roots when co-cultivated with C58 and N2/73 strains of ***Agrobacterium*** Effective vir induction requires a medium with pH 5.8, although some strains also showed a good response at all pH levels used in the study e.g. C58. A dramatic complete necrosis was obsd. in all ***sugar*** ***beet*** lines at all pH levels when co-cultivated with the same four ***Agrobacterium*** strains with the addn. of acetosyringone.

ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS

Agrobacterium -mediated ***transformation*** of ***sugar***

beet (Beta vulgaris) was investigated for T-DNA transfer

efficiency, using an intron contg. .beta.-glucuronidase gene. Preculture

and coculture of hypocotyl and cotyledon ***explants*** with

acetosyringone upon infection was studied. Seven seed lots which included

several hundred genotypes, were screened, and were all susceptible to

T-DNA transfer but with variable frequencies. Cotyledon ***explants***

were more readily ***transformed*** than those from hypocotyls.

Transformation frequency of hypocotyl ***explants***

increased

with acetosyringone. Both preculture treatment and acetosyringone improved ***transformation*** in cotyledon ***explants*** . Callus assayed with fluorometric procedures confirmed that the GUS gene had been transferred into ***sugar*** ***beet*** .

ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS

AB Kanamycin at 100-200 .mu.g/mL inhibited rosette formation by fodder beet

leaf petiole ***explants*** . Thus, kanamycin may be used as marker at 100 .mu.g/mL in fodder beet and at 150 .mu.g/mL in ***sugar*** ***beet*** ***transformation*** . Callus formation was more sensitive to kanamycin than shoot and rosette formation. Carbenicillin and claphoran at $500 \, .mu.g/mL$ decreased the frequency of callus formation 4- and 2-fold, resp., on nonselective media and inhibited shoot initiation less. Claphoran at 500 .mu.g/mL did not inhibit shoot formation by ***sugar*** 150 .mu.g kanamycin/mL, where the frequency of rosette formation was .apprx.20%. Thus, claphoran may be used for ***Agrobacterium*** suppression in ***transformations*** using kanamycin. => s 17 and tips 0 L7 AND TIPS => s 17 and meristem? 0 L7 AND MERISTEM? => s spinach(w)hypocotyl(w)segments 3 SPINACH(W) HYPOCOTYL(W) SEGMENTS => d 112 1-3 L12 ANSWER 1 OF 3 AGRICOLA 92:80729 AGRICOLA IND92045971 Shoot regeneration from ***spinach*** ***hypocotyl*** ***segments*** by short term treatment with 5,6-Dichloro-indole-3acetic acid. Mii, M.; Nakano, M.; Okuda, K.; Iizuka, M. Chiba University, Chiba, Japan DNAL (QK725.P54) Plant cell reports, 1992. Vol. 11, No. 2. p. 58-61 Publisher: Berlin, W. Ger. : Springer International. CODEN: PCRPD8; ISSN: 0721-7714 NTE Includes references. Article Non-U.S. Imprint other than FAO English L12 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. 1992:262503 BIOSIS BA93:138828 SHOOT REGENERATION FROM ***SPINACH*** ***HYPOCOTYL*** ***SEGMENTS*** BY SHORT TERM TREATMENT WITH 5 6 DICHLOROINDOLE-3-ACETIC ACID. MII M; NAKANO M; OKUDA K; IIZUKA M FAC. HORTICULTURE, CHIBA UNIV., 648 MATSUDO, CHIBA 271, JPN. PLANT CELL REP, (1992) 11 (2), 58-61. CODEN: PCRPD8. ISSN: 0721-7714. BA; OLD English

leaf petiole ***explants*** more than by ***sugar***

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L11

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L12 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS

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     Shoot regeneration from ***spinach*** ***hypocotyl***
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     Fac. Hortic., Chiba Univ., Chiba, 271, Japan
CS
     Plant Cell Reports (1992), 11(2), 58-61
     CODEN: PCRPD8; ISSN: 0721-7714
DT
     Journal
     English
LΑ
=> d l12 1 ab
L12 ANSWER 1 OF 3 AGRICOLA
     Factors affecting shoot regeneration from hypocotyl segments of spinach
     (Spinacia oleracea L.) were investigated. When explants were cultured on
     medium containing 10 mg/l IAA for 7 weeks, 3 out of 9 cultivars showed
     relatively high shoot regeneration response (15-35%). The other PGRs
     tested had no effect on shoot regeneration. However, the transfer of
     explants from auxin-containing medium to auxin-free medium 20 d after
     culture induced shoot formation from explants cultured on media containing
     each of the auxin sources tested individually. By applying this short term
     auxin treatment, more than 80% shoot regeneration was obtained on medium
     containing 5-20 mg/l 5,6-Cl2-IAA, compared to less than 30% with 10-20 \,
     mg/l IAA treatment.
=> s l12 and meristem?
L13
             0 L12 AND MERISTEM?
=> s agrobacterium and melon and meristem?
             3 AGROBACTERIUM AND MELON AND MERISTEM?
=> d l14 1-3
L14 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS
AΝ
     2002:977962 CAPLUS
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     138:36240
     Improved efficiency of regeneration of transgenic plants using
      ***meristematic***
                           or nodal tissue transformed with
       ***Agrobacterium***
     Goldman, Stephen L.; Rudrabhatla, Sairam V.
PΑ
     University of Toledo, USA
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     PCT Int. Appl., 84 pp.
     CODEN: PIXXD2
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     Nucleic acid sequence of novel genetic vector and methods for plant gene
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     Baulcombe, David Charles; Martin-Hernandez, Ana Montserrat
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     Plant Bioscience Limited, UK
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L14
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ĎΝ
     136:178987
     Stable transformation of multiple shoot cultures of plants
TI
     Chang, Yin-Fu; Zhong, Heng; Dunder, Erik Martin; Rouse, Sabrina Noel; Gu,
     Weining; Boudreau, Eric
     Syngenta Participations A.-G., Switz.
PA
SO
     PCT Int. Appl., 43 pp.
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AΒ

L14 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS

Methods of efficiently transforming monocotyledonous and dicotyledonous plant tissue and regenerating plants with a very high yield of transgenic plants are described. The method uses ***Agrobacterium*** ***meristem*** transform root or apical that is then cultured under conditions that generate somatic embryogenesis. The time required for the prodn. of transgenic plants is significantly decreased, while the no. of transgenic plants is significantly increased. These increases are not dependent upon the use of super-virulent ***Agrobacterium*** The invention also relates to an improved technique for in vitro regeneration of mono- and di-cotyledonous plants in a suitable medium contg. a novel growth regulator regime that promotes cell elongation in the prodn. of numerous somatic embryos that are regenerable into fertile plants. Optimization expts. for the transformation of grasses and legumes using a .beta.-glucuronidase reporter gene are described. Efficient genotype-independent regeneration of transgenic corn is demonstrated.

L14 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS

Provided are insolated DNA vectors which may be based on ***Agrobacterium*** binary vectors. The present invention relates to recombinant, replicable, plant-viral based nucleic acid constructs, and methods of use thereof in silencing genes in plants. The vector comprising a plant active promoter, operably linked to a recombinant tobacco rattle virus (TRV) nucleic acid which may corresponds to all or part of TRV RNA 1. TRV RNA sequence encoding a TRV trans acting factor, and cis acting elements, which confer on the TRV nucleic acid transcript the ability to replicate in the cytoplasm of a plant cell, a heterologous nucleotide sequence which is foreign to said virus (which may be a cloning site, or a targeting sequence which is capable of down-regulating expression of a target gene); and a border sequences which permit the transfer of the transfer nucleotide sequence into a plant cell genome. Preferred vectors include pBTA.DELTA.MP.DELTA.16K or pBTA.DELTA.MP. Also provided are related materials and methods of use of such vectors e.g. to produce a cytoplasmically-replicating RNA which can be used to silence target genes in plants.

L14 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS

AB Multiple shoot structures are induced from plant tissues (e.g., shoot apices or axillary buds on an artificial medium) to produce multiple shoot cultures. These multi-shoot cultures are then transformed by known transformation methods. Plants are subsequently regenerated from the transformed cells. Crops that may be efficiently transformed by this

method include plants normally recalcitrant to transformation such as sugar beet, sunflower, soybean, cotton, tobacco, tomato, peanuts, ***melons***, watermelon, squash, Brassica, and pepper. Thus, the apical or axillary ***meristems*** contg. shoot primodia, leaf primodia, young leaves, and a portion of hypocotyls are excised from germinating seedlings or plantlets of squash (Cucurbita pepo). They are maintained on SM medium, growth under light at 25.degree. and subcultured biweekly; the shoot tip explants are ready for transformation after the first subculture. ***Agrobacterium*** tumefaciens-mediated transformation efficiency using these multiple shoot cultures ranged from 1 to 5%.

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     Improved efficiency of regeneration of transgenic plants using
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     Goldman, Stephen L.; Rudrabhatla, Sairam V.
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L15 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2003 ACS
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     136:178987
ΤI
     Stable transformation of multiple shoot cultures of plants
     Chang, Yin-Fu; Zhong, Heng; Dunder, Erik Martin; Rouse, Sabrina Noel; Gu,
IN
     Weining; Boudreau, Eric
PΑ
     Syngenta Participations A.-G., Switz.
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CS
     Plant Science Division, School of Biological Sciences, University of
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SO
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     1999:549109 CAPLUS
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     A method for the production of transgenic plants using apical shoot tips
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     Trolinder, Norma L.; Koonce, Linda K.; Dever, Jane K.
ΙN
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IN
     Trolinder, Norma L.; Koonce, Linda
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NEWS 19 Jan 29 Simultaneous left and right truncation added to COMPENDEX,
                 ENERGY, INSPEC
NEWS 20 Feb 13 CANCERLIT is no longer being updated
NEWS 21 Feb 24 METADEX enhancements
NEWS 22 Feb 24 PCTGEN now available on STN
NEWS 23 Feb 24 TEMA now available on STN
NEWS 24 Feb 26 NTIS now allows simultaneous left and right truncation
NEWS 25 Feb 26 PCTFULL now contains images
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NEWS 28 Mar 20 EVENTLINE will be removed from STN
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                 structures available in REGISTRY
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                 Indexing from 1957 to 1966 added to records in CA/CAPLUS
NEWS 32 Apr 11 Display formats in DGENE enhanced
NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
              MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
              AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
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L2 68 DUPLICATE REMOVE L1 (46 DUPLICATES REMOVED)

=> d l2 1-10 ti

- L2 ANSWER 1 OF 68 CAPLUS COPYRIGHT 2003 ACS
- TI Production of ***multiple*** ***shoots*** from thidiazuron-treated mature embryos and leaf-base/apical meristems of barley (Hordeum vulgare)
- L2 ANSWER 2 OF 68 CAPLUS COPYRIGHT 2003 ACS
- TI Novel ***multiple*** ***shoot*** proliferation and regeneration system for plants

- L2 ANSWER 3 OF 68 CAPLUS COPYRIGHT 2003 ACS
- TI Stable ***transformation*** of ***multiple*** ***shoot***
 cultures of plants
- L2 ANSWER 4 OF 68 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
- TI Genetic ***transformation*** by particle bombardment of cultivated jute, Corchorus capsularis L.
- L2 ANSWER 5 OF 68 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2
- TI Competence of oat (Avena sativa L.) shoot apical meristems for integrative ***transformation*** , inherited expression, and osmotic tolerance of transgenic lines containing hval.
- L2 ANSWER 6 OF 68 CAPLUS COPYRIGHT 2003 ACS
- TI Regeneration and ***transformation*** of a roadside tree Pittosporum tobira A.
- L2 ANSWER 7 OF 68 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 3
- TI Age, position in mother seedling, orientation, and polarity of the epicotyl segments of blackgram (Vigna mungo L. Hepper) determines its morphogenic response.
- L2 ANSWER 8 OF 68 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 4
- TI Culturing shoot-tip clumps of pearl millet (Pennisetum glaucum (L.) R. Br.) and optimal microprojectile bombardment parameters for transient expression.
- L2 ANSWER 9 OF 68 CAPLUS COPYRIGHT 2003 ACS
- TI Establishment of ***multiple*** ***shoot*** clumps from maize (Zea mays L.) and regeneration of herbicide-resistant transgenic plantlets
- L2 ANSWER 10 OF 68 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
- TI Plant regeneration from seedling explants of common bean (Phaseolous vulgaris L.).

=> d 12 3

- L2 ANSWER 3 OF 68 CAPLUS COPYRIGHT 2003 ACS
- AN 2002:142895 CAPLUS
- DN 136:178987
- TI Stable ***transformation*** of ***multiple*** ***shoot*** cultures of plants
- IN Chang, Yin-Fu; Zhong, Heng; Dunder, Erik Martin; Rouse, Sabrina Noel; Gu,
 Weining; Boudreau, Eric
- PA Syngenta Participations A.-G., Switz.
- SO PCT Int. Appl., 43 pp.
 CODEN: PIXXD2
- DT Patent
- LA English
- FAN.CNT 1

PATENT NO. KIND DATE

APPLICATION NO. DATE

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                    A3
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L10 NOT FOUND

The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> d l1 11-20 ti

- L1 ANSWER 11 OF 114 AGRICOLA
- TI Vicamine production in ***multiple*** ***shoot*** culture derived from hairy roots of Vinca minor.
- L1 ANSWER 12 OF 114 AGRICOLA
- TI Regeneration of pigeonpea (Cajanus cajan) from cotyledonary node via ***multiple*** ***shoot*** formation.
- L1 ANSWER 13 OF 114 AGRICOLA
- TI Stable ***transformation*** via particle bombardment in two different soybean regeneration systems.
- L1 ANSWER 14 OF 114 AGRICOLA
- TI Stable ***transformation*** of Phaseolus vulgaris via electric-discharge mediated particle acceleration.
- L1 ANSWER 15 OF 114 AGRICOLA
- TI High efficiency plant regeneration from cotyledons of watermelon (Citrullus vulgaris Schrad.).
- L1 ANSWER 16 OF 114 AGRICOLA
- TI Efficient shoot regeneration of Brassica campestris using cotyledon explants cultured in vitro.
- L1 ANSWER 17 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Age, position in mother seedling, orientation, and polarity of the epicotyl segments of blackgram (Vigna mungo L. Hepper) determines its morphogenic response.
- L1 ANSWER 18 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Competence of oat (Avena sativa L.) shoot apical meristems for integrative

- ***transformation*** , inherited expression, and osmotic tolerance of transgenic lines containing hval.
- L1 ANSWER 19 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Culturing shoot-tip clumps of pearl millet (Pennisetum glaucum (L.) R. Br.) and optimal microprojectile bombardment parameters for transient expression.
- L1 ANSWER 20 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI In vitro induction and enlargement of apical domes and formation of

 multiple ***shoots*** in finger millet, Eleusine coracana
 (L.)
- Gaertn and crowfoot grass, Eleusine indica (L.) Gaertn.
- => d l1 12 18 ab
- L1 ANSWER 12 OF 114 AGRICOLA
- AB Plant regeneration, which is the major limiting factor for ***transformation*** of Cajanus cajan, has been obtained via region of seedlings germinated on MS medium containing 2 mg 1-1 6-benzylaminopurine. A mass of ***multiple*** ***shoot*** formed at the axillary bud region of the cotyledonary node of the seedlings within two weeks. The cotyledonary node along with the mass of shoot-initials excised from the seedling, continued to form new shoot-initials on MS medium containing 6-benzylaminopurine (2 mg l-1) and supplemented topically with indole-3-acetic acid. The formation of new shoot-initials was also observed from the cotyledonary nodal explant, after cutting off its surface layers to completely remove the pre-existing shoot-initials and culturing it on 6-benzylaminopurine (2 mg 1-1) containing medium. The shoots elongated rapidly on basal MS medium and rooted efficiently in MS medium supplemented with indole-3-butyric acid (0.5 mg l-1). The procedure described is efficient, and highly reproducible and a common response was observed for all the six varieties tested.
- L1 ANSWER 18 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- Three oat (Avena sativa L.) cultivars have been successfully AΒ ***transformed*** using an efficient and reproducible in vitro culture system for differentiation of ***multiple*** ***shoots*** from shoot apical meristems. The ***transformation*** was performed using microprojectile bombardment with two plasmids (pBY520 and pAct1-D) containing linked (hval-bar) and non-linked (gus) genes. The hval and bar genes cointegrated with a frequency of 100% as expected, and 61.6% of the transgenic plants carried all three genes. Molecular and biochemical analyses in R0, R1 and R2 progenies confirmed stable integration and expression of all transgenes. Localization of the GUS protein in R0 and R1 plants revealed that high-expression of gus occurred in vascular tissues and in the pollen grains of mature flowers. The constitutive expression of HVA1 protein was observed at all developmental stages of transgenic plants, and was particularly stronger during the early seedling stages. R2 progeny of five independent transgenic lines was tested in vitro for tolerance to osmotic (salt and mannitol) stresses. As compared to non-transgenic control plants, transgenic plants maintained a higher growth and showed significantly (P<0.05) increased tolerance to stress conditions. Less than 10% of transgenic plants showed symptoms of wilting

or death of leaves and, when these symptoms present were delayed in transgenic plants as compared to 80% of non-transgenic plants, either wilted or died. These symptoms confirmed the increased in vitro tolerance in hval-expressing transgenic plants to non-transgenic plants, providing strong evidence that the HVA1 protein may play an important role in the protection of oats against salinity and possible water-deficiency stress conditions.

=> d l1 19 ti ab

- L1 ANSWER 19 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Culturing shoot-tip clumps of pearl millet (Pennisetum glaucum (L.) R. Br.) and optimal microprojectile bombardment parameters for transient expression.
- AB Microprojectile bombardment and transient expression of the reporter gene, beta-glucuronidase (GUS) in a novel target tissue, ***multiple*** ***shoot*** -tip clumps of pearl millet (Pennisetum glaucum (L.) R. Br.) is reported here. The ***multiple*** ***shoot*** -tip clumps were developed in vitro from shoot-apices of seedlings. Using this method, the apical meristems along with the germline cells were easily exposed for bombardment without loss of viability. Further growth of the ***multiple*** ***shoot*** -tip clumps was not substantially

affected

by microprojectile bombardment. Transient expression of beta-glucuronidase gene was detected in the form of blue ***transformed*** cell sectors in the bombarded tissue by an in situ enzyme assay. The blue sectors were used as convenient criteria to study several factors affecting gene transfer efficiency. Optimal conditions for efficient transient expression of the GUS gene have been defined to aid future strategies of genetic engineering in pearl millet with agronomically important genes.

=> d l1 15 ti ab

- L1 ANSWER 15 OF 114 AGRICOLA
- TI High efficiency plant regeneration from cotyledons of watermelon (Citrullus vulgaris Schrad.).
- Cotyledons of various ages from seedlings of eight watermelon (Citrullus AΒ vulgaris) cultivars were cultured on MS medium supplemented with different combinations of phytohormones. High frequency shoot regeneration (60.0-92.0%) was induced from 5-day-old cotyledons of cultivars cultured on MS medium containing 5.0 mg/l 6-benzylaminopurine (BA) and 0.5 mg/l $\,$ indole-3-acetic acid (IAA). ***Multiple*** ***shoot*** elongated on MS medium containing 0.2 mg/l kinetin (KT) and 5-10 shoots per explant could be recovered depending on the cultivars. Elongated shoots rooted on MS medium with 0.1 mg/l alpha-naphthalene acetic acid (NAA). Zeatin riboside (ZT) had a similar efficiency as BA in shoot induction, and it was significantly more functional than 2-isopentenyladenine (2iP) or kinetin (KT). Cotyledons from 5-day-old seedlings were the most responsive to shoot induction.

=> d l1 21-30 ti

- L1 ANSWER 21 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Genetic ***transformation*** by particle bombardment of cultivated

jute, Corchorus capsularis L.

- L1 ANSWER 22 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Enhanced regeneration of tomato and pepper seedling explants for Agrobacterium-mediated ***transformation*** .
- L1 ANSWER 23 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Regeneration and shoot multiplication of Macadamia tetraphylla L. Johnson.
- L1 ANSWER 24 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Agrobacterium-mediated ***transformation*** of a Dendrobium orchid with the class 1 knox gene DOH1.
- L1 ANSWER 25 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI In vitro propagation of loblolly pine via direct somatic organogenesis from mature cotyledons and hypocotyls.
- L1 ANSWER 26 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI DOH1, a class 1 knox gene, is required for maintenance of the basic plant architecture and floral transition in orchid.
- L1 ANSWER 27 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Efficient organogenesis of an Australian passionfruit hybrid (Passiflora edulis X Passiflora edulis var. flavicarpa) suitable for gene delivery.
- L1 ANSWER 28 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Transgenic Trifolium repens with foliage accumulating the high sulphur protein, sunflower seed albumin.
- L1 ANSWER 29 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI In vitro regeneration and Agrobacterium mediated ***transformation*** in gladiolus.
- L1 ANSWER 30 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Agrobacterium tumefaciens-mediated ***transformation*** and transgenic-plant regeneration of onion (Allium cepa L.

=> d l1 31-40 ti

- L1 ANSWER 31 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Plant regeneration from mature embryo-derived callus of Australian rice (Oryza sativa L.) varieties.
- L1 ANSWER 32 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI In vitro shoot multiplication of Macadamia tetraphylla L. Johnson.
- L1 ANSWER 33 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Regeneration of fertile plants from isolated zygotes of rice (Oryza sativa.
- L1 ANSWER 34 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Embryogenic callus formation and plant regeneration from leaf base segments of barley (Hordeum vulgare L.
- L1 ANSWER 35 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Insertion of the maize transposable element Ac into soybean (Glycine max

- L. Merr.) by Agrobacterium mediated ***transformation*** method.
- L1 ANSWER 36 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Plantlet regeneration from decapitated embryonic axes of pigeonpea (Cajanus cajan (L.) Millsp.
- L1 ANSWER 37 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Comparison of shoot regeneration potential from seedling explants of Austatralian cauliflower (Brassica oleracea var. botrytis) varieties.
- L1 ANSWER 38 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Introduction and expression of marker genes in sandalwood (Santalum album L.) following Agrobacterium-mediated ***transformation*** .
- L1 ANSWER 39 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- In vitro plant regeneration from different seedling explants of blackgram (Vigna mungo (L.) Hepper) via organogenesis.
- L1 ANSWER 40 OF 114 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Anthurium roots for micropropagation and Agrobacterium tumefaciens-mediated gene transfer.
- => s l1 and melon or beet or sunflower
- L3 107549 L1 AND MELON OR BEET OR SUNFLOWER
- => s l1 and (melon or beet or sunflower)
- L4 3 L1 AND (MELON OR BEET OR SUNFLOWER)
- => d 14 1-3 ti
- L4 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Transgenic Trifolium repens with foliage accumulating the high sulphur protein, ***sunflower*** seed albumin.
- L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS
- TI Stable ***transformation*** of ***multiple*** ***shoot***
 cultures of plants
- L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS
- TI Transgenic Trifolium repens with foliage accumulating the high sulphur protein, ***sunflower*** seed albumin

=> d 14 1 ti ab

- L4 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Transgenic Trifolium repens with foliage accumulating the high sulphur protein, ***sunflower*** seed albumin.
- AB With the aim of increasing the rumen-protected level of the sulphur amino acids cysteine and methionine in Trifolium repens, we introduced the coding sequence of the ***sunflower*** seed albumin (SSA) into T. repens by Agrobacterium tumefaciens-mediated ***transformation***. The SSA gene was modified such that the protein would be localized to the endoplasmic reticulum (ER). Four different T-DNA constructions all containing the SSA gene driven by either the promoter of a gene encoding the small subunit of ribulose bisphosphate carboxylase (Rubisco) from

Arabidopsis thaliana (Assu), the promoter of the gene encoding the small subunit of Rubisco of Medicago sativa (Lssu), or the Cauliflower Mosaic Virus 35S promoter (CaMV35S), were transferred to T. repens cv. Haifa. Transgenic T0-plants and inter-transgenic hybrids were analyzed for the level of SSA accumulation in the leaves by western blotting. The highest observed level of SSA accumulation was 0.1% of total extractable leaf protein. We observed that the promoter had a substantive effect on the level of SSA accumulation with Assu > CaMV35S > Lssu. Results from the inter-transgenic hybrids showed that the capacity to synthesize SSA was inherited. However the level of SSA accumulation in the leaves generally appears not to be additive with extra transgenic loci. During this work, we attempted to improve the efficiency of A. tumefaciens-mediated ***transformation*** of T. repens using the SAAT-method (Sonication Assisted Agrobacterium-mediated ***Transformation***) on cotyledons of T. repens. T-DNA transfer was in general not enhanced by sonication compared to traditional A. tumefaciens-mediated ***transformation*** Furthermore, Southern blot analyses of plants regenerated from the same cotyledon after A. tumefaciens treatment and under selection, indicated that ***multiple*** ***shoots*** were usually derived from the ***transformation*** event. We concluded from these results that only one plant from each A. tumefaciens-treated cotyledon should be taken to avoid transgenic clones.

=> s l1 and unexpected

L5 0 L1 AND UNEXPECTED

=> s l1 and unpredictable

L6 0 L1 AND UNPREDICTABLE

=> s l1 and problem?

L7 0 L1 AND PROBLEM?

=> s l1 and result?

L8 28 L1 AND RESULT?

=> d 18 1-10 ti

L8 ANSWER 1 OF 28 AGRICOLA

TI In vitro propagation of loblolly pine via direct somatic organogenesis from mature cotyledons and hypocotyls.

L8 ANSWER 2 OF 28 AGRICOLA

TI Anthurium roots for micropropagation and Agrobacterium tumefaciens-mediated gene transfer.

L8 ANSWER 3 OF 28 AGRICOLA

TI Efficient Agrobacterium-mediated ***transformation*** of Arabidopsis thaliana using the bar gene as selectable marker.

L8 ANSWER 4 OF 28 AGRICOLA

TI Vicamine production in ***multiple*** ***shoot*** culture derived from hairy roots of Vinca minor.

L8 ANSWER 5 OF 28 AGRICOLA

TI Stable ***transformation*** via particle bombardment in two different soybean regeneration systems.

- L8 ANSWER 6 OF 28 AGRICOLA
- TI Efficient shoot regeneration of Brassica campestris using cotyledon explants cultured in vitro.
- L8 ANSWER 7 OF 28 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI In vitro propagation of loblolly pine via direct somatic organogenesis from mature cotyledons and hypocotyls.
- L8 ANSWER 8 OF 28 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Transgenic Trifolium repens with foliage accumulating the high sulphur protein, sunflower seed albumin.
- L8 ANSWER 9 OF 28 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Plant regeneration from mature embryo-derived callus of Australian rice (Oryza sativa L.) varieties.
- L8 ANSWER 10 OF 28 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
- TI Embryogenic callus formation and plant regeneration from leaf base segments of barley (Hordeum vulgare L.
- => d 18 4 ti ab
- L8 ANSWER 4 OF 28 AGRICOLA
- TI Vicamine production in ***multiple*** ***shoot*** culture derived from hairy roots of Vinca minor.
- Characteristics of regenerated plants obtained from hairy roots (Ri-AΒ ***transformed*** plants) of Vinca minor L., a producer of a pharmaceutically important indole alkaloid, vincamine, were investigated. A previously established Ri- ***transformed*** clone, Vm-101, proliferates rapidly in vitro, displays a high degree of lateral branching and rapid shoot elongation and has a growth index 2.5 times that of an untransformed plant. The addition of 2.2 micromolar benzyladenine to the culture medium increased the shoot number but did not decrease the growth index. Vincamine content in the leaves of in vitro-cultured Vm-101 was twice that in the cultured untransformed plant. These ***results*** suggest that ***multiple*** ***shoot*** culture of Ri-***transformed*** plants may be an excellent tool for in vitro

vincamine production.

---Logging off of STN---

Executing the logoff script...

=> LOG Y

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COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

STN INTERNATIONAL LOGOFF AT 14:17:16 ON 11 APR 2003